

Name \_\_\_\_\_

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

- 1) There are no questions for this chapter. 1) \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

- 2) The normal heart is the size of a 2) \_\_\_\_\_  
A) cherry. B) watermelon. C) man's fist. D) foot.
- 3) The top of the heart where the great vessels emerge is the 3) \_\_\_\_\_  
A) chordae tendonae. B) tricuspid valve.  
C) apex. D) base.
- 4) The fibrous tissue that divides the heart into right and left sides is the 4) \_\_\_\_\_  
A) papillary muscle. B) chordae tendonae.  
C) septum. D) pulmonic valve.
- 5) The apex of the heart is located at the 5) \_\_\_\_\_  
A) top of the heart, where the great vessels emerge.  
B) bottom of the heart, at the leftmost tip.  
C) back wall of the heart.  
D) right side of the heart.
- 6) Pericardial fluid 6) \_\_\_\_\_  
A) prevents backflow of blood from one chamber to the other.  
B) circulates through the heart's chambers.  
C) lubricates the electrical system of the heart.  
D) decreases friction of the pericardial layers as they rub against each other.
- 7) The innermost layer of the heart is the 7) \_\_\_\_\_  
A) endocardium. B) myocardium. C) pericardium. D) epicardium.
- 8) The layer of the heart that is damaged during a heart attack is the 8) \_\_\_\_\_  
A) epicardium. B) myocardium. C) pericardium. D) endocardium.
- 9) Which of these statements about the pericardium is NOT true? 9) \_\_\_\_\_  
A) It is a two-layer sac enclosing the heart.  
B) It anchors the heart to the diaphragm and great vessels.  
C) It is the wall of the heart that is damaged in a heart attack.  
D) It serves as protection for the heart.
- 10) Which of the following statements about the right atrium is TRUE? 10) \_\_\_\_\_  
A) It is the receiving chamber for deoxygenated blood coming from the vena cava.  
B) It is the major pumping chamber of the heart.  
C) It is a receiving chamber for oxygenated blood returning from the lungs.  
D) It is about 100% saturated with oxygen.

- 11) Which heart chamber delivers oxygenated blood to the entire body? 11) \_\_\_\_\_  
A) Left atrium                      B) Right ventricle                      C) Right atrium                      D) Left ventricle
- 12) The heart's valves open and close in response to changes in 12) \_\_\_\_\_  
A) sodium and potassium concentration.                      B) the heart's pacemaker.  
C) pressure.                      D) oxygenation.
- 13) Heart valves serve what purpose? 13) \_\_\_\_\_  
A) They prevent blood from flowing forward.  
B) They prevent oxygenated blood from flowing through the coronary arteries.  
C) They control the heart's electrical signals.  
D) They prevent backflow of blood.
- 14) The valve that separates the right atrium and right ventricle is the 14) \_\_\_\_\_  
A) mitral valve.                      B) tricuspid valve.  
C) pulmonic valve.                      D) aortic valve.
- 15) The heart valve found at the opening of the pulmonary artery is the 15) \_\_\_\_\_  
A) aortic valve.                      B) pulmonic valve.  
C) tricuspid valve.                      D) mitral valve.
- 16) Which of the following are both AV valves? 16) \_\_\_\_\_  
A) Tricuspid and mitral valves                      B) Aortic and pulmonic valves  
C) Mitral and pulmonic valves                      D) Aortic and mitral valves
- 17) The first heart sound (S1) is associated with closure of which heart valves? 17) \_\_\_\_\_  
A) Tricuspid and mitral                      B) Mitral and aortic  
C) Tricuspid and pulmonic                      D) Aortic and pulmonic
- 18) The second heart sound (S2) is associated with closure of which heart valves? 18) \_\_\_\_\_  
A) Tricuspid and mitral                      B) Aortic and pulmonic  
C) Mitral and aortic                      D) Tricuspid and pulmonic
- 19) The structure that prevents backflow of blood is the 19) \_\_\_\_\_  
A) superior vena cava.                      B) papillary muscle.  
C) trabeculae carnae.                      D) valve.
- 20) What causes heart sounds? 20) \_\_\_\_\_  
A) Blood hitting an obstruction in the peripheral circulation  
B) Closing of the heart valves  
C) Blood traveling through the heart  
D) Opening of the heart valves
- 21) Through which structure must blood travel in order to leave the right ventricle? 21) \_\_\_\_\_  
A) Pulmonic valve                      B) Left ventricle                      C) Right atrium                      D) Tricuspid valve
- 22) Which valves open to allow the ventricles to fill? 22) \_\_\_\_\_  
A) Tricuspid and pulmonic                      B) Tricuspid and mitral  
C) Aortic and pulmonic                      D) Aortic and mitral

- 23) The inferior vena cava returns deoxygenated blood to the heart from \_\_\_\_\_  
A) the lower extremities and abdomen.  
B) the head and neck.  
C) the coronary circulation.  
D) none of these—the vena cava carries oxygenated blood.
- 24) When oxygenated blood enters the heart, it flows \_\_\_\_\_  
A) from the cardiac veins into the right atrium.  
B) from the pulmonary veins into the left atrium.  
C) from the pulmonary artery into the left ventricle.  
D) from the superior vena cava into the right ventricle.
- 25) Which is TRUE about the *rest-and-digest* response? \_\_\_\_\_  
A) It slows down digestion.  
B) It decreases heart rate and blood pressure.  
C) It results in increased heart rate and blood pressure.  
D) It is a function of the sympathetic nervous system.
- 26) Pulmonary veins deliver blood to the \_\_\_\_\_  
A) right ventricle.      B) left ventricle.      C) right atrium.      D) left atrium.
- 27) The vessel that delivers oxygenated blood to the anterior wall of the left ventricle is the \_\_\_\_\_  
A) coronary vein.      B) right coronary artery.  
C) left anterior descending coronary artery.      D) left main coronary artery.
- 28) The coronary circulation supplies oxygenated blood to the myocardium during \_\_\_\_\_  
A) ventricular ejection.      B) isovolumetric contraction.  
C) the entire cardiac cycle.      D) diastole.
- 29) The cardiac cycle's two phases are \_\_\_\_\_  
A) isovolumetric relaxation and contraction.      B) preload and afterload.  
C) systole and diastole.      D) atrial kick and ventricular filling.
- 30) The semilunar valves open when the \_\_\_\_\_  
A) ventricular pressure exceeds the aortic and pulmonary arterial pressures.  
B) impulse arrives at the AV node.  
C) atrial and ventricular pressures are equal.  
D) atrial pressure exceeds the ventricular pressure.
- 31) The parasympathetic nervous system causes \_\_\_\_\_  
A) decrease in heart rate.      B) pupillary dilation.  
C) increase in blood pressure.      D) slowed digestion.
- 32) In which two chambers of the heart does blood have an oxygen concentration of nearly 100%? \_\_\_\_\_  
A) Right atrium and right ventricle      B) Left atrium and right ventricle  
C) Right atrium and left ventricle      D) Left atrium and left ventricle
- 33) Which type of cardiac cells cause the heart muscle to contract? \_\_\_\_\_  
A) Conduction system cells      B) Coronary system cells  
C) Circumflex cells      D) Contractile cells

- 34) The electrical signals that tell the heart when to beat are created and transmitted by \_\_\_\_\_  
 A) circumflex cells. B) coronary system cells.  
 C) contractile cells. D) conduction system cells.
- 35) Together, the sympathetic nervous system and the parasympathetic nervous system make up the \_\_\_\_\_  
 A) central nervous system. B) automatic nervous system.  
 C) peripheral nervous system. D) autonomic nervous system.
- 36) The fight-or-flight response is \_\_\_\_\_  
 A) associated with the parasympathetic nervous system and mediated by norepinephrine.  
 B) associated with the parasympathetic nervous system and mediated by acetylcholine.  
 C) associated with the sympathetic nervous system and mediated by acetylcholine.  
 D) associated with the sympathetic nervous system and mediated by norepinephrine.
- 37) Stimulation of the vagus nerve \_\_\_\_\_  
 A) causes the release of acetylcholine and triggers the rest-and-digest response.  
 B) causes the release of norepinephrine and triggers the rest-and-digest response.  
 C) causes the release of acetylcholine and triggers the fight-or-flight response.  
 D) causes the release of norepinephrine and triggers the fight-or-flight response.
- 38) Through which vessel does oxygenated blood enter the capillaries? \_\_\_\_\_  
 A) Veins B) Venules C) Aorta D) Arterioles
- 39) Which of the following is the correct sequence of blood flow through the peripheral circulation? \_\_\_\_\_  
 A) Arteries—veins—vena cava—capillaries  
 B) Capillaries—arterioles and venules—arteries and veins  
 C) Veins—venules—capillaries—arterioles—arteries  
 D) Arteries—arterioles—capillaries—venules—veins
- 40) The vessel that delivers oxygenated blood to the capillary bed is the \_\_\_\_\_  
 A) artery. B) venule. C) arteriole. D) vein.

**TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.**

- 41) The epicardium is the layer of the heart that is damaged during a heart attack. \_\_\_\_\_
- 42) The heart chamber that has the greatest workload is the right atrium, as it pumps blood out to the entire body. \_\_\_\_\_
- 43) The heart is composed primarily of muscle. \_\_\_\_\_
- 44) The heart has three layers: the endocardium, myocardium, and epicardium. \_\_\_\_\_
- 45) The layer of the heart that does the work of contracting is the endocardium. \_\_\_\_\_
- 46) The pericardium is a double-walled sac that encloses the heart and serves as support and protection. \_\_\_\_\_
- 47) The right atrium is a thin-walled receiving chamber for newly oxygenated blood from the lungs. \_\_\_\_\_

- 48) The left atrium pumps blood into the right atrium. 48) \_\_\_\_\_
- 49) The heart's top and bottom chambers are separated by valves that prevent backflow of blood. 49) \_\_\_\_\_
- 50) The semilunar valves are the aortic and mitral valves. 50) \_\_\_\_\_
- 51) The job of the heart valves is to prevent backflow of blood. 51) \_\_\_\_\_
- 52) The vena cava is a large artery that carries blood from the right ventricle to the lungs. 52) \_\_\_\_\_
- 53) The three main coronary arteries are the aorta, the left main, and the chordae tendoneae. 53) \_\_\_\_\_
- 54) The first phase of diastole is called the atrial kick, and it is the phase during which the atria fill with blood from the ventricles. 54) \_\_\_\_\_
- 55) The phase of systole that results in the greatest consumption of myocardial oxygen is isovolumetric contraction. 55) \_\_\_\_\_

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

- 56) The tricuspid valve separates the \_\_\_\_\_ from the \_\_\_\_\_. 56) \_\_\_\_\_
- 57) The cardiac cycle refers to the mechanical events that occur to \_\_\_\_\_. 57) \_\_\_\_\_
- 58) The \_\_\_\_\_ is the layer of the heart that contains the cardiac conduction system. 58) \_\_\_\_\_
- 59) The fluid found between the layers of the pericardium is called \_\_\_\_\_. 59) \_\_\_\_\_
- 60) The \_\_\_\_\_ is the chamber that receives blood from the superior and inferior venae cavae. 60) \_\_\_\_\_
- 61) The half-moon-shaped valves are the \_\_\_\_\_ and the \_\_\_\_\_. 61) \_\_\_\_\_
- 62) The superior vena cava returns blood to the right atrium from the \_\_\_\_\_. 62) \_\_\_\_\_
- 63) The coronary artery that feeds blood to the right ventricle and the inferior wall of the left ventricle is the \_\_\_\_\_. 63) \_\_\_\_\_
- 64) The coronary artery that feeds blood to the lateral wall of the left ventricle is the \_\_\_\_\_. 64) \_\_\_\_\_
- 65) The two phases of the cardiac cycle are systole and \_\_\_\_\_. 65) \_\_\_\_\_
- 66) The function of the heart is to \_\_\_\_\_. 66) \_\_\_\_\_
- 67) The normal amount of blood circulated by the heart every minute is \_\_\_\_\_ liters. 67) \_\_\_\_\_

## Answer Key

Testname: UNTITLED1

- 1)
- 2) C
- 3) D
- 4) C
- 5) B
- 6) D
- 7) A
- 8) B
- 9) C
- 10) A
- 11) D
- 12) C
- 13) D
- 14) B
- 15) B
- 16) A
- 17) A
- 18) B
- 19) D
- 20) B
- 21) A
- 22) B
- 23) A
- 24) D
- 25) B
- 26) D
- 27) C
- 28) D
- 29) C
- 30) A
- 31) A
- 32) D
- 33) D
- 34) D
- 35) D
- 36) D
- 37) A
- 38) D
- 39) D
- 40) C
- 41) FALSE
- 42) FALSE
- 43) TRUE
- 44) TRUE
- 45) FALSE
- 46) TRUE
- 47) FALSE
- 48) FALSE
- 49) TRUE
- 50) FALSE

## Answer Key

Testname: UNTITLED1

- 51) TRUE
- 52) FALSE
- 53) FALSE
- 54) FALSE
- 55) TRUE
- 56) Right atrium, right ventricle
- 57) Pump blood
- 58) Endocardium
- 59) Pericardial fluid
- 60) right atrium
- 61) pulmonic, aortic
- 62) Head; chest; upper arms
- 63) Right coronary artery (RCA)
- 64) Circumflex
- 65) Diastole
- 66) Pump enough blood to meet the body's metabolic needs
- 67) 4–8; 4 to 8; four to eight